

## CLAIMS

1. A control system for a voltage converter, said control system comprising :

- a first switch (T1), a second switch (T2), a third switch (T3) and a fourth switch (T4) connected in series,
- said first switch (T1) having a first output terminal (N1),
- 5 - the common terminal of said first switch (T1) and said second switch (T2) defining a second output terminal (N2),
- the common terminal of said second switch (T2) and said third switch (T3) being intended to be connected to an input voltage (VDD),
- the common terminal of said third switch (T3) and said fourth switch (T4) defining
- 10 a third output terminal (N3),
- said fourth switch (T4) having another output terminal intended to be connected to a ground potential (GND),
- said first, second and third output terminals (N1, N2, N3) being intended to be connected to a voltage converter of a first type or to a voltage converter of a second
- 15 type,
- detection means (DET) connected to said third output terminal (N3), to generate a detection signal (DS) indicating said first type or said second type of voltage converter,
- a circuit (CIR) intended to generate, from a clock signal (CLK) and said detection
- 20 signal (DS), control signals (CS1,CS2,CS3,CS4) intended to control said first, second, third and fourth switches (T1, T2, T3, T4).

2. A control system as claimed in the claim 1, wherein the detection means (DET) comprise :

- 25 - means (CS) for injecting a current (i) at said third output terminal (N3),
- comparing means (COMP) to compare the potential of said third output terminal (N3), with a reference potential (Vref).

3. A control system as claimed in claim 1 or 2, wherein said voltage converter of a first type comprises :

- an inductance (L) connected between said input voltage (VDD) and said third output terminal (N3),
- 5     - a diode (D) connected between said first output terminal (N1) and said second output terminal (N2).

4. A control system as claimed in claim 1 or 2, wherein said voltage converter of a second type comprises a capacity (Cp) connected between said second output terminal (N2) and said third output terminal (N3).

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5. An integrated circuit (IC) comprising a control system for a voltage converter as claimed in claim 1, 2, 3 or 4.